

LOCATION HYDRAULIC STUDY FORM

Dist. 12 Co. OC Rte. 405 P.M. 23.53
EA 071621 Bridge No. N/A
Floodplain Description: Montecito Storm Channel

1. Description of Proposal (include any physical barriers i.e. concrete barriers, soundwalls, etc. and design elements to minimize floodplain impacts)

Roadway widening, soundwalls.

2. ADT: Current 370,000 Projected 512,000

3. Hydraulic Data: Base Flood $Q_{100} =$ 410 ft^3 / s
WSE₁₀₀ = Unknown The flood of record, if greater than Q_{100} :
 $Q =$ Unknown ft^3 / s WSE = Unknown
Overtopping flood $Q =$ Unknown m^3 / s WSE = Unknown
Are NFIP maps and studies available? YES X NO

4. Is the highway location alternative within a regulatory floodway ?
YES NO X

5. Attach map with flood limits outlined showing all buildings or other improvements within the base floodplain.

Potential Q_{100} backwater damages:

A. Residences?	NO <u>X</u>	YES <u> </u>
B. Other Bldgs?	NO <u>X</u>	YES <u> </u>
C. Crops?	NO <u>X</u>	YES <u> </u>
D. Natural and beneficial floodplain values?	NO <u>X</u>	YES <u> </u>

6. Type of Traffic:

A. Emergency supply or evacuation route?	NO <u> </u>	YES <u>X</u>
B. Emergency vehicle access?	NO <u> </u>	YES <u>X</u>
C. Practicable detour available?	NO <u>X</u>	YES <u> </u>
D. School bus or mail route?	NO <u>X</u>	YES <u> </u>

7. Estimated duration of traffic interruption for 100-year event hours: 0

8. Estimated value of Q_{100} flood damages (if any) – moderate risk level.

9	Assessment of Level of Risk	Low	X
		Moderate	
		High	

Signature – Dist. Project Engineer _____ Date _____
(Item numbers 1,2,6,8)

APPENDIX E
SUMMARY FLOODPLAIN ENCROACHMENT REPORT

SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 9.89/11.45
Project No.: 71621 Bridge No.: N/A
Limits: Bristol St. in Costa Mesa to Interstate 605 in Long Beach

Floodplain Description: Gisler Storm Channel

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?	<u> </u>	<u> X </u>
2. Are the risks associated with the implementation of the proposed action significant?	<u> X </u>	<u> </u>
3. Will the proposed action support probable incompatible floodplain development?	<u> X </u>	<u> </u>
4. Are there any significant impacts on natural and beneficial floodplain values?	<u> X </u>	<u> </u>
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u> X </u>	<u> </u>
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u> X </u>	<u> </u>
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	<u> </u>	<u> X </u>

PREPARED BY:

Signature - Dist. Hydraulic Engineer

Date

Signature - Dist. Environmental Branch Chief

Date

Signature - Dist. Project Engineer

Date

SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 11.70
Project No.: 071621 Bridge No.: 55 0476
Limits: Bristol St. in Costa Mesa to Interstate 605 in Long Beach

Floodplain Description: Greenville Banning Channel

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?	<u>X</u>	<u> </u>
2. Are the risks associated with the implementation of the proposed action significant?	<u>X</u>	<u> </u>
3. Will the proposed action support probable incompatible floodplain development?	<u>X</u>	<u> </u>
4. Are there any significant impacts on natural and beneficial floodplain values?	<u>X</u>	<u> </u>
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u>X</u>	<u> </u>
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u>X</u>	<u> </u>
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	<u> </u>	<u>X</u>

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SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 12.41
Project No.: 071621 Bridge No.: 55 0258
Limits: Bristol St. in Costa Mesa to Interstate 605 in Long Beach

Floodplain Description: Santa Ana River

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?		<u>X</u>
2. Are the risks associated with the implementation of the proposed action significant?	<u>X</u>	
3. Will the proposed action support probable incompatible floodplain development?	<u>X</u>	
4. Are there any significant impacts on natural and beneficial floodplain values?	<u>X</u>	
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u>X</u>	
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u>X</u>	
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.		<u>X</u>

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SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 12.87
Project No.: 071621 Bridge No.: N/A
Limits: Bristol St. in Costa Mesa to Interstate 605 in Long Beach

Floodplain Description: Fountain Valley Channel

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?	<u>X</u>	<u> </u>
2. Are the risks associated with the implementation of the proposed action significant?	<u>X</u>	<u> </u>
3. Will the proposed action support probable incompatible floodplain development?	<u>X</u>	<u> </u>
4. Are there any significant impacts on natural and beneficial floodplain values?	<u>X</u>	<u> </u>
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u>X</u>	<u> </u>
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u>X</u>	<u> </u>
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	<u> </u>	<u>X</u>

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SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 14.50/16.98
Project No.: 071621 Bridge No.: 55 0478
Limits: Bristol St. in Costa Mesa to Interstate 605 in Long Beach

Floodplain Description: Ocean View Channel

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?	<u>X</u>	<u> </u>
2. Are the risks associated with the implementation of the proposed action significant?	<u>X</u>	<u> </u>
3. Will the proposed action support probable incompatible floodplain development?	<u>X</u>	<u> </u>
4. Are there any significant impacts on natural and beneficial floodplain values?	<u>X</u>	<u> </u>
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u>X</u>	<u> </u>
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u>X</u>	<u> </u>
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	<u> </u>	<u>X</u>

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SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 14.50/16.98
Project No.: 071621 Bridge No.: 55 0480
Limits: Bristol St. in Costa Mesa to Interstate 605 in Long Beach

Floodplain Description: East Garden Grove Wintersburg Channel

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?	<u>X</u>	<u> </u>
2. Are the risks associated with the implementation of the proposed action significant?	<u>X</u>	<u> </u>
3. Will the proposed action support probable incompatible floodplain development?	<u>X</u>	<u> </u>
4. Are there any significant impacts on natural and beneficial floodplain values?	<u>X</u>	<u> </u>
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u>X</u>	<u> </u>
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u>X</u>	<u> </u>
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	<u> </u>	<u>X</u>

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SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 20.56/20.91

Project No.: 071621 Bridge No.: N/A

Limits: Bristol St. in Costa Mesa to Interstate 605 in Long Beach

Floodplain Description: Milan Storm Drain

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?	<u>X</u>	<u> </u>
2. Are the risks associated with the implementation of the proposed action significant?	<u>X</u>	<u> </u>
3. Will the proposed action support probable incompatible floodplain development?	<u>X</u>	<u> </u>
4. Are there any significant impacts on natural and beneficial floodplain values?	<u>X</u>	<u> </u>
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u>X</u>	<u> </u>
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u>X</u>	<u> </u>
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	<u> </u>	<u>X</u>

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SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 23.08
Project No.: 071621 Bridge No.: N/A
Limits: Bristol St. in Costa Mesa to Interstate 605 in Long Beach

Floodplain Description: Bixby Storm Channel

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?		
2. Are the risks associated with the implementation of the proposed action significant?	<u>X</u>	
3. Will the proposed action support probable incompatible floodplain development?	<u>X</u>	
4. Are there any significant impacts on natural and beneficial floodplain values?	<u>X</u>	
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u>X</u>	
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u>X</u>	
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.		<u>X</u>

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SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist. 12 Co. OC Rte. 405 P.M. 23.53
Project No.: 071621 Bridge No.: N/A
Limits: _____

Floodplain Description: Montecito Storm Channel

	No	Yes
1. Is the proposed action a longitudinal encroachment of the base floodplain?	<u>X</u>	_____
2. Are the risks associated with the implementation of the proposed action significant?	<u>X</u>	_____
3. Will the proposed action support probable incompatible floodplain development?	<u>X</u>	_____
4. Are there any significant impacts on natural and beneficial floodplain values?	<u>X</u>	_____
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	<u>X</u>	_____
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	<u>X</u>	_____
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	_____	<u>X</u>

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